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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TAKASHI YAMANAKA, MASAO KASUGA,
AKIHIRO IINO and KENJI SUZUKI

Appeal No. 2003-0121
Application No. 09/143,318

ON BRIEF

Before HAIRSTON, KRASS and FLEMING, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-8 and 10-21.

The invention is directed to an ultrasonic motor. Rather than forming components of the ultrasonic motor, such as an oscillating member, a moving body, an output means and a pressing mechanism, from conducting materials, as was done conventionally, the instant invention forms at least one of these components of

an insulating material so as to prevent formation of a current path without the need for an additional insulator between the conductor and the ultrasonic motor.

Representative independent claim 1 is reproduced as follows:

1. In an electrical apparatus having a power supply for supplying power to an electrical device and a movable member driven by an ultrasonic motor, the ultrasonic motor being mounted to a conductive member through which a power supply current is passed from the power supply to the electrical device, the ultrasonic motor comprising: a driving circuit for producing an oscillatory wave; a power source for powering the driving circuit; a piezoelectric element driven by the driving circuit to undergo vibration, the piezoelectric element and the driving circuit cooperating to form a self-oscillation circuit; an oscillating member in contact with the piezoelectric element for oscillating in response to vibration of the piezoelectric element; a moving body contacting the oscillating member to undergo movement in response to oscillation of the oscillating member; and a pressing mechanism for urging the moving body against the oscillating member; wherein the ultrasonic motor is mounted to the conductor such that a current path would exist between the conductor and an electrode of the piezoelectric element if the components of the ultrasonic motor were formed of conductive materials, and at least one of the oscillating member, the pressing mechanism and the moving body which could, if formed of a conductor, provide the current path between the conductor and the electrode of the piezoelectric element is formed of an insulating material so as to prevent formation of the current path without the need for an additional insulator between the conductor and the ultrasonic motor.

The examiner relies on the following references:

Tokusima et al. (Tokusima)	4,562,373	Dec. 31, 1985
Saeki et al. (Saeki)	5,053,669	Oct. 1, 1991
Kawai et al. (Kawai)	5,172,023	Dec. 15, 1992
Miyazawa et al. (Miyazawa)	5,247,220	Sep. 21, 1993

Suzuki et al. (Suzuki)	5,770,912	Jun. 23, 1998 (filed Mar. 6, 1996)
Iino et al. (Iino)	5,780,955	Jul. 14, 1998 (filed Sep. 30, 1996)

Claims 1-8 and 10-21 stand rejected under 35 U.S.C. § 103 as unpatentable over any one of Miyazawa, Iino, or Suzuki in view of any one of Saeki, Tokusima or Kawai.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

OPINION

Without identifying any specific portions of the references, the examiner alleges that each of Miyazawa, Iino and Suzuki teaches a self-excited vibration motor including a rotor, a stator base, a pressing means and a drive circuit, but does not teach the provision of electrical insulation. The examiner turns to Saeki, Tokusima and Kawai and alleges that each one of these references teaches that it was "known to provide piezoelectric ultrasonic motors with various parts formed of insulating material, including rotors, stators and pressing members" (answer-page 3). The examiner then concludes that it would have been obvious "to provide parts of Miyazawa, lino (sic, Iino), or Suzuki as insulating materials" (answer-page 3).

For their part, appellants contend that a desire to avoid electric shock by providing insulation for various components is not sufficient motivation to make the proposed combination because ultrasonic motors, being inherently miniature, low-voltage devices, do not present an electrical shock hazard. However, according to appellants, even if this was sufficient motivation, the combination would still not result in the instant claimed subject matter because the instant "claims recite a particular structure rather than the indiscriminate use of an insulating material in an ultrasonic motor" (principal brief-page 17).

It is appellants' position that while the rejection of the claims is directed solely to the obviousness of forming one or more elements of an ultrasonic motor using an insulating material, the examiner has overlooked other limitations of the independent claims 1 and 13. In particular, contend appellants, these claims "recite a configuration having at least three distinct features which are absent from the cited references, including: (1) mounting of an ultrasonic motor to a conductive member of an electrical apparatus through which a power supply current is passed from a power supply to an electrical device; (2) mounting of the ultrasonic motor to the conductive member

such that a current path would exist between the conductive member and an electrode of a piezoelectric element of the ultrasonic motor if the components of the ultrasonic motor were formed of conductive materials; and (3) at least one component of the ultrasonic motor (claim 13) or at least one of the oscillating member, the pressing mechanism and the moving body of the ultrasonic motor (claim 1) which could, if formed of a conductor, provide the current path between the conductive member and the electrode of the piezoelectric element, is formed of an insulating material (or has an insulating coating) to prevent formation of the current path without the need for providing an additional insulator between the conductive member and the ultrasonic motor" (principal brief-pages 17-18).

Thus, appellants do not deny that the prior art discloses that one or more elements of an ultrasonic motor may be formed of an insulating material. But, they do argue that the prior art does not disclose or suggest an electrical apparatus having an ultrasonic motor mounted to a conductive member through which a power supply current is passed, and that it does not disclose or suggest that the ultrasonic motor is mounted to the conductive member such that a current path would exist between the conductive member and an electrode of the piezoelectric element

if the components of the ultrasonic motor were formed of conductive materials. Thus, appellants are alleging that there "is no disclosure in the applied references cited by the Examiner that would have suggested the mounting of an ultrasonic motor directly to a conductive member of a device through which a current passes" (principal brief-page 19).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason much stem from some teachings, suggestions or implications in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert.

denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

In our view, the examiner has fallen far short of presenting a prima facie case of obviousness. In particular, the examiner has not applied any of the six applied references to the instant claim language. Without giving any particulars, the examiner has merely alleged that any one of the three primary references teaches a "self-excited vibration motor including a rotor, stator base, a pressing means and a drive circuit," that any one of the three secondary references teaches providing "piezoelectric ultrasonic motors with various parts formed of insulating material..." and that it would have been obvious to provide the parts of any of the three primary references as "insulating materials."

As appellants have explained, the instant claimed subject matter recites more than merely forming parts of an ultrasonic motor of insulating material; it requires a certain structural configuration. For example, both independent claims 1 and 13

require "the ultrasonic motor being mounted to a conductive member through which a power supply current is passed from the power supply to the electrical device." Yet, even though specifically argued by appellants, the examiner has made no effort to explain where this is taught by the applied references. The claims also recite "wherein the ultrasonic motor is mounted to the conductor such that a current path would exist between the conductor and an electrode of the piezoelectric element if the components of the ultrasonic motor were formed of conductive materials..." Yet, the examiner also never comes to grips with this limitation, though appellants have argued the limitation in both the principal and reply briefs.

We do not mean to imply, one way or another, that the instant claimed subject matter is patentable or unpatentable over the applied references. We merely point out that the examiner has not met his burden of establishing a prima facie case of obviousness and, as such, we will not sustain the examiner's rejection of claims 1-8 and 10-21 under 35 U.S.C. § 103. It is not the job of this Board to review six references, with no guidance by the examiner as to the specific portions thereof relied on by the examiner, looking for teachings and suggestions of the instant claimed subject matter, all the while speculating

as to the examiner's rationale. The Board's function is, inter alia, to review examiners' rejections and determine the propriety of those rejections. In the instant case, it is clear to us that the examiner has not met the initial burden of establishing a prima facie case of obviousness since there is no indication in the rejection, or rationale therefor, how, exactly, the cited references are being applied to meet, or suggest, the specific language of the instant claims.

Accordingly, the examiner's decision rejecting claims 1-8 and 10-21 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON)
Administrative Patent Judge)
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ERROL A. KRASS)
Administrative Patent Judge) BOARD OF PATENT
) APPEALS AND
) INTERFERENCES
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MICHAEL R. FLEMING)
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